

Congenital syphilis in the twenty-first century: an area-based study

Serena Salomè *

Division of Neonatology, Department of Translational Medical Sciences, University of Naples Federico II, Naples, Italy.

DOI: 10.36129/jog.2022.S116

Objective. The resurgence of syphilis and the subsequent risk for newborns has been described worldwide, however European data on this congenital infection is lacking. We report the activity of a multidisciplinary specialized unit which assists a large area in Southern Italy.

Materials and Methods. A retrospective cohort study was conducted at the Perinatal and Pediatric Infectious Disease Units of the Federico II University in Naples, enrolling all newborns and children referred from January 2010 to June 2022 exposed to *Treponema pallidum* in utero and/or congenitally infected.

Results. A total of 323 patients were included in the analysis. Twenty (6.2%) received a diagnosis of confirmed congenital syphilis (CS) and one died. Fifteen CS cases had typical

clinical features. The number of referred neonates tripled after 2017 while the rate of late maternal diagnoses did not significantly differ. When compared with mothers of exposed infants, mothers of CS cases were younger (25 ± 7.2 vs 29.9 ± 6 years, $p = 0.041$), had less previous pregnancies (0.64 vs 1.11 , $p = 0.044$) and had received a diagnosis of syphilis at a later stage of pregnancy (86% vs 20% , from the third trimester or later, $p < 0.001$). Appropriate maternal therapy is protective against vertical transmission (-1.2 , $95\%CI -1.4, -1$, $p < 0.001$). Paternal syphilis status was known in 36% of cases.

Conclusions. CS has still a significant impact. Prevention should be implemented towards specific maternal risk profiles. A specialized unit is the preferable model to improve surveillance and healthcare for this neglected population.